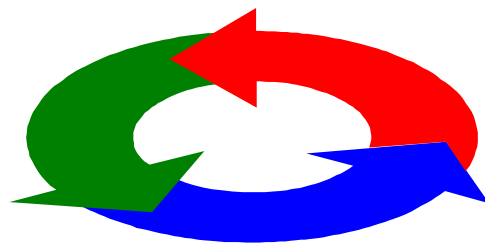


Amendments



Improving Awareness & Advocacy of the Michigan Biosolids Program

Volume 5, Fourth Quarter

October, 2004

DEQ News

DEQ REORGANIZATION

The restructuring of the DEQ has been announced. The new structure changes the Water Division into the Water Bureau. The Water Bureau will have two Divisions, Field Operations and Lansing Operations. The District Offices will be divided into two geographical areas. One area will have the Jackson, Lansing and Southeast Michigan Districts. The other area will have the Cadillac, Grand Rapids, UP, Kalamazoo, and Saginaw Bay Districts. The biosolids, surface water engineering support, and pretreatment Programs will be in the Field Operations Division. The changes will be implemented over the next few months.

NEW DISTRICT OFFICE STAFF

On September 27th it was announced that Jeffrey Lippert had been hired into the Southeast Michigan District office to do ½ time Biosolids and ½ time NPDES compliance. We wish to welcome Jeff to his new position. Jeff's address is:

Jeffrey Lippert
Water Bureau
38980 Seven Mile Rd
Livonia, MI 48152-1006
734-953-1455
Email: LIPPERTJ@michigan.gov

ANNUAL REPORTS REMINDER

This is a reminder that the time to submit annual reports is approaching. This October 30th is the deadline for submission of annual reports to DEQ from all facilities for the period beginning October 1, 2003 through September 30, 2004.

Facilities that have not land applied biosolids must still complete a portion of the report. The 2004 report form has been revised some from last year and is available to be downloaded from our web site. Paper forms were mailed out in mid-September.

The 2004 Biosolids Annual Report Form is available under "Downloads" on the DEQ Biosolids Page at:

http://www.michigan.gov/deq/1,1607,7-135-3313_3683_3720--,.00.html

National News

MAKING A STINK

Published: August 25, 2004

By ANDREA BARKAN
Pilot Staff Writer

The odor and the flies annoy E. Abrams, but what really bothers him is knowing that the fertilizer his neighbor across the Chetco River uses comes from human waste.

Over the past couple of weeks, neighbors of longtime local rancher Keith Smith have watched Roto-Rooter trucks drive up North Bank Chetco River Road and spread class B biosolids across his land.

The City of Brookings contracts with Roto-Rooter to use their trucks to spread the fertilizer, treated sludge from the Waste Water Treatment Plant.

It's a common practice that's been going on for at least 25 years. It's a way for the city to get rid of the community's biological waste and for local farmers to get free fertilizer.

"It benefits (the city) in cost," Joe Ingwersen, Waste Water Treatment Plant manager, said. "It benefits the farmer and his crop. It's a very good fertilizer and it also puts till back into the soil."

But Keith Smith's neighbors don't quite see it that way.

They're concerned about potential runoff from Smith's biosolid-laden land into the Chetco River. One of Smith's fields runs along the river and biosolids have recently been applied to about 60 acres of it.

"I don't think it should be on the river flats," said Abrams, who lives on South Bank Chetco River Road.

"This is a real fragile river," Abrams said. "It's one of the prettiest rivers in Oregon because it's so clean, and damn, let's keep it that way."

Plus, people swim in the Chetco all the time, he added.

"The recreational use for the river is outstanding," Abrams said.

South Bank resident Richard Wallace is also concerned.

"I consider this river ... one of the last unspoiled rivers there is and here they are just dumping this stuff all over," Wallace said.

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National News Cont'd

But it's not exactly that haphazard. The process and application of biosolids are regulated by federal and state laws.

Some experts, including officials from Cornell University Waste Management Institute, have publicly condemned federal sludge laws as too relaxed.

Paul Kennedy, natural resource specialist for Oregon Department of Environmental Quality (DEQ), said Oregon's sludge laws are more stringent than the federal Environmental Protection Agency's Part 503 Rule.

For example, the EPA says biosolids can't be applied within 33 feet of U.S. waters, such as the Chetco River.

But in Oregon, under DEQ's rules, biosolids have to be at least 200 feet from water, Kennedy said.

The biosolids on Smith's land are even farther – he estimates between 400 and 500 feet from water's edge.

But Abrams and Wallace worry that the distance won't make much difference in the rainy season, when that part of the field is sometimes underwater.

The EPA does not prohibit applying biosolids to a flood plain, but does say the applier has to ensure it doesn't enter surface waters or wetlands.

Kennedy, who oversees biosolid application all over Oregon, approved this land for fertilization about three years ago.

This is a summer site; Smith and city officials must wait for the Chetco River to drop to fertilize.

Ingwerson and Kennedy say there won't be any runoff by the time rain comes because they apply exactly the amount the soil can absorb, as mandated by the EPA.

Kennedy said they use Oregon State University's fertilizer guide to determine how many pounds of nitrogen the land will use.

The EPA calls this the agronomic rate. Their rule requires that the amount of bulk biosolids applied to land be equal to or less than the agronomic rate.

The substance sprayed on Smith's land is about 97 percent water and three percent solids, Kennedy said.

According to the EPA, "The organic nitrogen and phosphorous found in biosolids are used very efficiently by crops because these plant nutrients are released slowly throughout the growing season.

"This enables the crop to absorb these nutrients as the crop grows," EPA officials said. "This efficiently lessens the likelihood of groundwater pollution of nitrogen and phosphorous."

Plants immediately use the water-soluble nitrogen, so that's gone by winter, Kennedy said.

The "organics" disappear from the surface in a couple of months, he said.

"What you'll find is the organic (matter) gets incorporated into

the root ground and the organic mass," Kennedy said. It becomes part of the "soil food web," he said.

Ingwerson said he only applies as much nitrogen as the plants will use in one year's time.

"We apply in a manner that the nitrogen is not going to leave the site," Ingwerson said.

While Abrams agrees that is a good scientific argument, it's still not good enough for him.

For Smith, disgruntled neighbors are nothing new.

He said when he clears trees on riverfront property; he gets frantic calls from neighbors worried he's building a subdivision.

He limited his hours of irrigation because the electric generator was too noisy for his neighbors across the river. People have forever said he mistreats his cattle.

Smith's property first belonged to his wife's family, who started raising cattle on it in the 1920s.

Smith was a logger here for 29 years. He grew up in Myrtle Point and came to Brookings in 1950.

He can't help but feel his newer neighbors just don't understand agriculture. And it frustrates him.

"They come here from L.A. or wherever," he starts. "They've never ... they think a gallon of milk comes from the supermarket."

They buy river front property and then "want to control everything they can see from it," Smith said.

Abrams is frustrated too. And he would like to have some control over his environment because, as a three-time cancer survivor, he's acutely aware of how important environmental health can be.

Class B biosolids are treated, but still contain detectable levels of pathogens, the EPA said.

Abrams would prefer the biosolids be trucked to a landfill.

As with other alternatives, this is simply too costly for the city, Ingwerson said.

The nearest landfill is in Roseburg. "If we had to land (fill) all these tons of solids, it would cost a small fortune," Ingwerson said.

Another alternative is turning the sludge into Class A biosolids, which are processed further than Class B solids and contain so few pathogens the EPA puts no restrictions on their use.

Class A biosolids can be used in home gardens.

But again it comes down to money, and the lack thereof.

There are several systems available to make Class A solids, and they're all too expensive for the city, Ingwerson said. One of the necessary machines, a centrifuge, costs about \$1.5 million, he said.

"We've had engineers look into it and, really, at the moment it's cost prohibitive," Ingwerson said.

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National News Cont'd

The bottom line is that the waste has to be discarded.

"(In) one form or another, it has to be taken care of," Ingwerson said. "This is the best all around process for our city and the farmers.

"We're trying to give something back (to the soil) and make this work," he said.

COMPOT CUSTOMERS DON'T CARE ABOUT SOURCE NITROGEN-RICH PRODUCT CREATED FROM BIOSOLIDS

July 7, 2004
Becky Kramer
Staff writer

With its clumpy texture and earthy scent, Coeur d'Green compost is a favorite of customers at Northland Nursery in Post Falls.

They buy it by the truckload for gardens and new lawns. Only a few are put off by its origins. The nitrogen-rich compost is made from biosolids culled from the city of Coeur d'Alene's wastewater treatment plant.

"A lot of people like that recycling idea. Some have issues with it," says Dianna Decker, who owns Northland Nursery with her husband, Jay. "We tell them it's EPA tested."

Besides, she adds matter-of-factly: "We sell other products made from recycled people poop."

The city began producing Coeur d'Green in 1990. As a business proposition, the compost is a money loser. The city generates about \$28,000 from the sale of the trademarked product each year, recouping just a fraction of the cost of producing it.

But the compost is slightly cheaper and more predictable than the city's other disposal option: Finding farmers willing to apply municipal sludge to their fields, said Don Keil, Coeur d'Alene's assistant wastewater superintendent.

The city produces about 4,000 cubic yards of Coeur d'Green annually. That's 2.2 pounds per year, per person.

The compost is black, like coal. It emits a mild greenhouse odor, more humus than honey buckets.

The biosolids have already been through a primary treatment process by the time they're trucked to the 18-acre Coeur d'Green plant on Julia Avenue. They're mixed with wood chips, and left to compost. Microbes do the dirty work, Keil says.

During a 51-day curing process, temperatures in the piles of biosolids reach 131 degrees. Workers check the temperature frequently; making sure the mixture gets hot enough to kill pathogens.

Coeur d'Green is safe to use on vegetable gardens, Keil says. The compost meets all U.S. Environmental Protection Agency regulations for use in agriculture and horticulture.

Golf courses are big consumers of Coeur d'Green. Keil himself is an enthusiastic promoter. In 1991, he bought \$142

worth of the compost to seed his new lawn.

"It came out just fine," he says.

"It's quicker to establish grass because of its moisture holding capacity."

Keil's been bullish on biosolids since he worked at Montana State University's plant, soil and irrigation laboratory during the 1980s. He used to take five-gallon buckets of biosolids home for his wife, a gardener.

Coeur d'Green and other products like it beat out steer manure for nitrogen content. That's because the human diet is rich in protein, while cows only eat grass, Keil says.

The fluffiness of the compost also provides aeration in the soil, which gives plants a boost, he says.

The city sells Coeur d'Green in bulk to landscaping firms. Northland Nursery and Grace Tree & Forestry in Hayden are two of the largest purchasers. They retail the compost for \$20 to \$22 per cubic yard.

"We sell a ton of it. We also use a tremendous amount of it in our business," said Tim Kastning, owner of Grace Tree & Forestry.

Kastning often works in new subdivisions, where the layer of organic material was scraped away during the construction process. Coeur d'Green reintroduces beneficial bacteria to the soil, he says. "Healthy soil makes for a healthy tree."

At Northland Nursery, people cart away Coeur d'Green in the backs of pickups, or in garbage cans. The nursery also delivers. The compost is a good enhancement for "the soil conditions that God left us," Decker says.

"That rocky, sandy junk."

Many of her customers prefer man-made fertilizer to chemical compounds.

She tells the finicky to read the labels of other compost products. Many are made with biosolids.

"They don't realize they're already sticking their fingers in it," Decker says.

USEPA News

U.S. DEPARTMENT OF LABOR RECOMMENDS DISMISSAL OF ANTI-BIOSOLIDS WHISTLEBLOWER DISCRIMINATION CASE AGAINST EPA

The U. S. Department of Labor recommended on 6-9-04 that the discrimination case of anti-biosolids whistleblower David L. Lewis against EPA be dismissed. The decision indicates that Lewis did not provide credible scientific evidence to back up his belief that land application of Class B biosolids poses a significant danger to people living in the vicinity of the sites. DOL also found that any actions EPA and others took in regard to his claim either were not adverse discriminatory actions or were taken for legitimate reasons and not for retaliation.

Complainant (Lewis) contends that he engaged in protected activity when employed by the Environmental Protection

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Agency ("Respondent" or "EPA") and that Respondent discriminated against him as a result of that protected activity. Complainant contends that he published articles, made oral presentations and contacted Congress alleging that EPA's policy on sludge was not protective of human health. He further contends that in retaliation EPA required that he use unique disclaimers in his writings and speeches, collaborated against him with his adversaries, subjected him to a flawed peer review process, and disseminated papers that criticized his research and harmed his reputation. Respondent denies it took any adverse personnel action against Complainant. Based on the evidence contained in the record of this proceeding, the Department of Labor recommended that this case be dismissed.

The findings of fact and conclusions of law report includes discussions on the following: background into the complaint against EPA, structure of EPA, EPA's scientific publication procedures, EPA procedures for outside activities, background on Part 503 rulemaking, timeline of events, EPA funded organizations, requested complainant relief, and discrimination and adverse actions allegations by the complainant.

The Department of Labor conclusion found that the record is replete with evidence that EPA allowed Complainant to participate in cases to which EPA was not a party as an expert witness, to make oral presentations and to publish scientific and technical papers, all without censorship despite his blatant disagreement with EPA policy. All that was asked in return was that he provide his supervisors with timely notice of such activities and state that EPA does not necessarily endorse his views. As the peer reviews indicate, he has not provided credible scientific evidence to back up his belief, and he seems surprised to have discovered that those who believe just as strongly that the land application of biosolids is safe and beneficial, and may have a financial stake in the continued land application of biosolids as well, have not stood idly by while he questions the validity of their work and the safety of their product. Moreover, the report stated that he expects EPA to jump to his defense, despite his repeated criticism of the Agency, when his opinion – and ultimately his reputation – is challenged because of his activities outside of his work for EPA. Furthermore, he is unhappy over the agreement he made with EPA in settlement of a previous whistleblower complaint, which required him to retire from EPA in May 2003, and wants to get out from under that agreement.

In sum, any actions EPA took in regard to the Complainant either were not adverse actions or were taken for legitimate reasons and not for retaliation. The Department of Labor found that Complainant has failed to prove that the Respondent discriminated against him due to activity protected under any of the environmental whistleblower statutes under which this

case was brought. Therefore, the Department of Labor recommended that this case be dismissed in its entirety.

To view the link to the U.S. Department of Labor report, visit the links below or go directly to:
<http://www.oalj.dol.gov/public/wblower/DECSN/03caa05a.htm>.

Related Documents:

U.S. Department of Labor 060904 Recommended Decision Report: <http://biosolids.policy.net/relatives/28161.pdf>

U.S. Department of Labor 060904 Recommended Decision Report (WORD): <http://biosolids.policy.net/relatives/28162.doc>

Biosolid Tips

GARDENING TIPS WITH BIOSOLIDS

A fall application of organic nitrogen fertilizer, like class A biosolids such as Milorganite, is one of the most important fertilization techniques you can do for a lawn or a perennial garden. Class B biosolids can be applied in the fall to field crops like winter wheat and hay ground. It is best to hold off on nitrogen fertilizers between early August and the first fall frosts so that plants will begin to harden off in response to natural, late-summer cues of shorter days and lower nitrogen. Then when fall finally arrives, it is time to augment the soil's natural fertility by adding organic or slow-release granular fertilizer.

Organic materials such as biosolids, biosolids compost, and animal manure such as poultry manure and dried cow manure affect the soil like fall leaves do. The organic matter breaks down over winter spring just in time for their nutrients to be released and incorporated into a new season's plant growth. The timing is also perfect to avoid nitrogen losses to groundwater.

If we wait to fertilize in spring, we usually wait too long. Plants resume growth earlier than we expect, during February and March thaws. As they grow, they need nutrients. So while we're still indoors longing for spring break, trees, shrubs, perennials, lawns, hay, and wheat have left winter behind and are taking up the fall-applied slow-release organic nutrients.

Calendar of Events

Thursday, November 19, 2004

Location: SCCMUA, Dewitt, MI

Topic: Holiday Party

Thursday, January 13, 2005

Location: SCCMUA, Dewitt, MI

Topic: TBD

Thursday, February 17, 2005

Location: SCCMUA

Topic: TBD

MWEA Biosolids Seminar

March 2 - 3, 2005

Location: Eberhardt Center, Grand Rapids

For more information on the meeting, please contact Todd Wibright at (616) 457-0720.



This quarterly newsletter is a joint effort of the **Michigan Biosolids Team partnership**. It is designed to provide timely, relevant information about the beneficial use of biosolids. Submit information of interest or comments to:

[Steve Mahoney - mahoneys@michigan.gov](mailto:mahoneys@michigan.gov)

or telephone (517) 241-2508